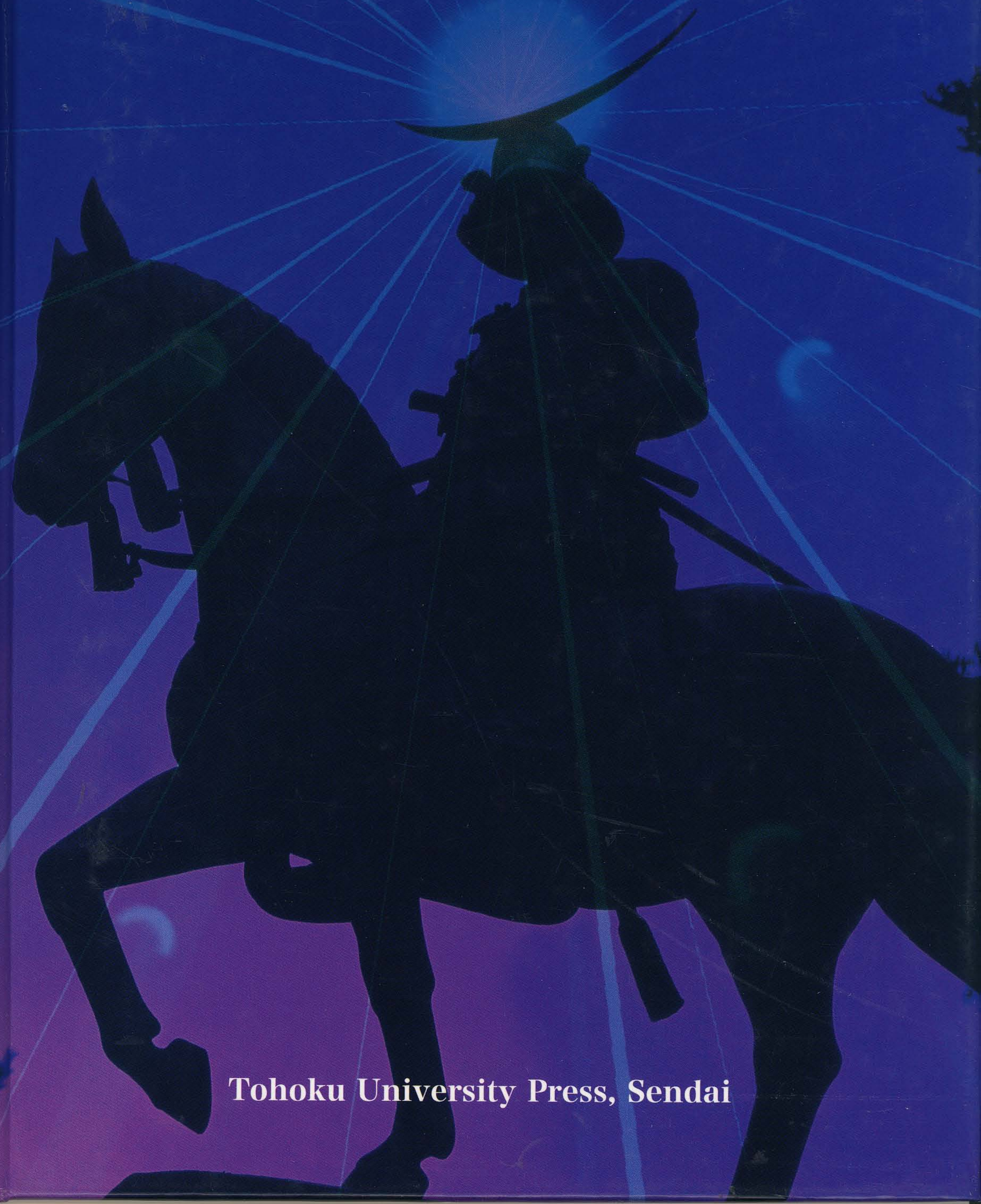
Recent Advances in Biomagnetism

Proceedings of the 11th International Conference on Biomagnetism

Edited by
Takashi Yoshimoto, Makoto Kotani, Shinya Kuriki,
Hiroshi Karibe and Nobukazu Nakasato



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PREFACE

The 11th International Conference on Biomagnetism (Biomag98) was held at the Sendai International Conference Center, Sendai, Japan, from August 28 to September 2, 1998. Every Biomag meeting since the first, held in Boston in 1976, has provided a unique and exciting opportunity to discuss state-of-the-art information in the field of Biomagnetism.

Biomagnetism can be used to investigate many bioelectric processes by measuring their accompanying magnetic fields, by such methods as magnetoencephalography and magnetocardiography. Biosusceptometry in the lung and other organs is also based on Biomagnetism. Other important aspects of Biomagnetism include SQUID technology for the detection of weak biomagnetic fields and theoretical issues such as inverse problems for biomagnetic source localization.

In addition to these conventional fields of Biomagnetism, the topics of Biomag98 were extended to include transcranial magnetic stimulation and magnetic resonance (MR) technologies such as functional MR imaging and MR spectroscopy. Combinations of these technologies are becoming more important, especially in clinical applications of conventional Biomagnetism.

We are very proud of the success of Biomag98, which lead to fruitful discussions involving the approximately 500 participants from 25 countries. In order to circulate the latest information, we have tried to publish this volume of proceedings as comprehensively and as rapidly as possible. Consequently, 296 papers have been compiled from the 405 presentations at the conference. Manuscript submission in camera-ready format has enabled publication within a year of the conference. We hope that awareness of the conference will spread more widely through this book among investigators of Biomagnetism and related fields.

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Sendai, Spring 1999

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